

## 3.4 Funding and Incentives

### Policy Description and Objective

#### Summary

States are achieving significant energy and cost savings through well-designed, targeted funding and incentives for clean energy technologies and services. Key types of financial incentives programs states offer include:

- Loans
- Tax incentives
- Grants, buy-downs, and generation incentives
- Nitrogen oxide (NO<sub>x</sub>) set-asides
- Energy performance contracting
- Supplemental Environmental Projects (SEPs)

States have achieved additional savings by coordinating financial incentives with other state programs and by leveraging utility-based clean energy programs.

Over the past three decades, states have diversified their programs from grants or loans into a broader set of programs targeted at specific markets and customer groups. This diversification has led to portfolios of programs with greater sectoral coverage, a wider array of partnerships with businesses and community groups, and an overall reduced risk associated with programmatic investments in energy efficiency and clean supply options.

#### Objective

State-provided funding and incentives meet the public purpose objectives of supporting technologies and products that are new to the market and encouraging and stimulating private sector investment. Funding and incentives can also reduce market barriers by subsidizing higher "first costs," increasing consumer awareness (the programs are often accompanied by education campaigns and the active promotion of products to help achieve a state's energy efficiency goals), and encourage or "jump-start" private sector investment.

States have developed a range of targeted funding and incentives strategies that are bringing clean energy to the marketplace, including loans, tax incentives, grants, buy-downs, performance contracting, set-asides for energy efficiency/renewable energy (EE/RE), and supplemental environmental projects (SEPs). These programs help governments, businesses, and consumers invest in a lower cost, cleaner energy system.

#### Benefits

States provide funding and incentives through a combination of sources (i.e., state and federal funds, utility programs, and ratepayers), to support a broad range of cost-effective clean energy technologies, including energy efficiency, renewable energy, and combined heat and power (CHP). State funding and incentive programs, some of which are self-sustaining (e.g., revolving loan funds), deliver energy and cost savings for governments, businesses, and consumers. Program results vary depending on the configuration of funding and incentives used by each state. In Texas, the revolving loan fund has resulted in \$152 million in savings since 1989 on an investment of \$123 million (DOE 2005). In Oregon, more than 12,000 tax credits worth \$243 million have been issued since 1980, which save or generate energy worth about \$215 million per year (Oregon DOE 2005b).

Providing funding and incentives for clean energy can offer the following environmental, energy, and economic benefits:

- Reduces energy costs by supporting cost-effective energy efficiency improvements and onsite generation projects.
- Ensures that clean energy is delivered, specifies which technologies are used, and offers incentives to install technologies. Providing funding and incentives also accelerates the adoption of clean energy technologies by improving the project economics and offsets market, institutional, or regulatory barriers until those barriers can be removed.

- Establishes a clean energy technology or project development infrastructure to continue stimulating the market after the incentives are no longer in effect.
- Leverages federal incentives and stimulates private sector investment by further improving the economic attractiveness of clean energy. A small investment may lead to broad support and adoption of a clean energy technology or process.
- Stimulates clean energy businesses and job creation within the state.
- Supports environmental protection objectives, such as improving air quality.

## States with Funding and Incentive Programs

States offer a diverse portfolio of financing and incentive approaches that are designed to address specific financing challenges and barriers and help specific markets and customer groups invest in clean energy. These programs include:

- Revolving loan funds
- Energy performance contracting
- Tax incentives
- Grants, rebates, and generation incentives
- NO<sub>x</sub> set-asides for energy efficiency and renewable energy projects
- SEPs

### *Revolving Loan Funds*

Revolving loan funds provide low-interest loans for energy efficiency improvements, renewable energy, and distributed generation (DG). Seven states currently operate a total of seven revolving loan programs that support energy efficiency, and 25 states have a total of 51 loan programs (including programs administered by the state, local government agencies, and utilities) that support clean generation (DSIRE 2005a, DSIRE 2006).

### Texas LoanSTAR Program

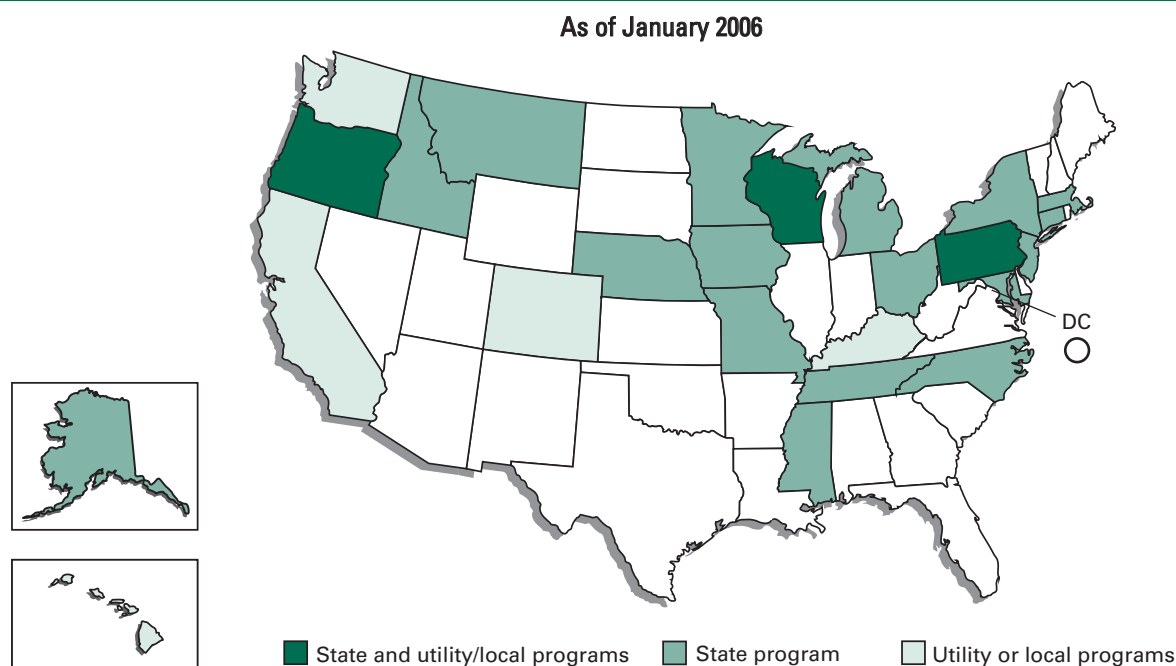
The Texas LoanSTAR program is designed to provide low-interest loans to finance energy conservation retrofits in state public facilities. Loans are repaid in four years or less, depending on expected energy savings. Loans are often repaid using cost savings from reduced energy costs. Energy savings are verified by benchmarked energy use before retrofits are installed, followed by monthly energy use analysis for each building.

The funds are designed to be self-supporting. States create a pool of capital when the program is launched. This capital then "revolves" over a multi-year period, as payments from borrowers are returned to the capital pool and are subsequently lent anew to other borrowers. Revolving funds can grow in size over time, depending on the interest rate that is used for repayment and the administrative costs of the program.

Revolving loan funds can be created from several sources, including public benefits funds (PBFs), utility program funds, state general revenues, or federal funding sources. The largest state energy efficiency revolving fund, the Texas LoanSTAR program, provides loans for energy efficiency projects in state public facilities. The fund is based on a one-time capital investment of \$98 million from federal oil overcharge restitution funds and is funded at a minimum of \$95 million annually. Loan funds are typically created by state legislatures and administered by state energy offices.

States have used revolving funds primarily for efficiency investments in publicly owned buildings or for facilities with a clear public purpose that are appropriate for any type of borrower. To contribute to state energy goals and be self-sustaining, states establish revolving funds that are either well-capitalized (e.g., large enough to meet a significant portion of the market need) or long-term (e.g., to allow funds to fully recycle and be re-loaned to a sizable number of borrowers). Ideally, revolving loan

**Figure 3.4.1: States with Revolving Loan Funds for Renewable Energy**



Source: DSIRE 2006a.

funds are both well-capitalized and long-term; however, it can be difficult to assemble the large pool of capital required to achieve both of these elements. In order to maintain a large pool of capital, it is important for states to consider several tradeoffs, including, for example, determining the balance between private and public sector loans, and between short-term and long-term loans. Additionally, if a fund holds only a few loans made to very similar types of commercial and industrial borrowers, it may be highly exposed to default; a fund with many diverse loans spreads the risks.

### Energy Performance Contracting

Energy performance contracting allows the public sector to contract with private energy service companies (ESCOs) to provide building owners with energy-related efficiency improvements that are guaranteed to save more than they will cost over the course of the contracting period. ESCOs provide energy auditing, engineering design, general contracting, and installation services. They help arrange project

financing and guarantee that the savings will be sufficient to pay for the project, where necessary, over the financing term (EPA 2004). (See Section 3.1, *Lead by Example*, for more information.) The contracts are privately funded and do not involve state funding or financial incentives. They have been used extensively by federal, state, and local facilities to reduce utility and operating costs and to help meet environmental and energy efficiency goals. These energy efficiency improvement projects can include the use of CHP. Twenty states have implemented performance contracting activities (ESC 2005), primarily through legislation. With the help of ESCOs, which provide energy efficiency expertise for project implementation, many facilities have experienced energy savings of 10% to 40% or more.

## Tax Incentives

State tax incentives for energy efficiency, renewable energy, and CHP take the form of personal or corporate income tax credits, tax reductions or exemptions (e.g., sales tax exemptions on energy-efficient appliances, such as the sales tax holidays offered by some states), and tax deductions (e.g., for construction programs). Tax incentives aim to spur innovation by the private sector by developing more energy-efficient technologies and practices and increasing consumer choice of energy-efficient products and services (Brown et al. 2002). Thirty-eight states currently have tax incentive programs for renewable energy (DSIRE 2005a).

State tax incentives for renewable energy are a fairly common policy tool. While state tax incentives tend to be smaller in magnitude than federal tax incentives, they are often additive and can become significant considerations when making purchase and investment decisions. The most common types of state tax incentives are (1) credits on personal or corporate income tax, and (2) exemptions from sales tax, excise tax, and property tax. In addition, some states have established production tax credits. For example, New Mexico offers a \$0.01 per kilowatt-hour (kWh) production tax credit for solar, wind, and biomass that can be taken along with the federal Production Tax Credit (PTC). Because different tax incentives are suitable to different taxpayers' circumstances, states may want to consider using a range of tax incentives to match these circumstances. For example, property tax exemptions might be more attractive for large wind projects, while homeowners might prefer to claim an income tax credit for the purchase of a solar photovoltaic (PV) system.

Several states provide tax incentives for CHP, including Connecticut, Idaho, Iowa, Nevada, New Mexico, North Carolina, Oregon, South Dakota, and Utah. The majority of these states also provide property tax credits that apply to renewable energy and CHP systems (e.g., Connecticut, Iowa, Nevada, North Carolina, Oregon, and South Dakota). Idaho offers a sales tax rebate on CHP equipment. New Mexico and

## Oregon Tax Incentives

The Oregon Department of Energy offers the *Business Energy Tax Credit (BETC)* and *Residential Energy Tax Credit (RETC)* to Oregon businesses and residents that invest in qualifying energy-efficient appliances and equipment, recycling, renewable energy resources, sustainable buildings, and transportation (e.g., alternative fuels and hybrid vehicles). Through 2004, more than 12,000 Oregon energy tax credits worth \$243 million have been awarded. All together, those investments save or generate energy worth about \$215 million a year (Oregon DOE 2005a).

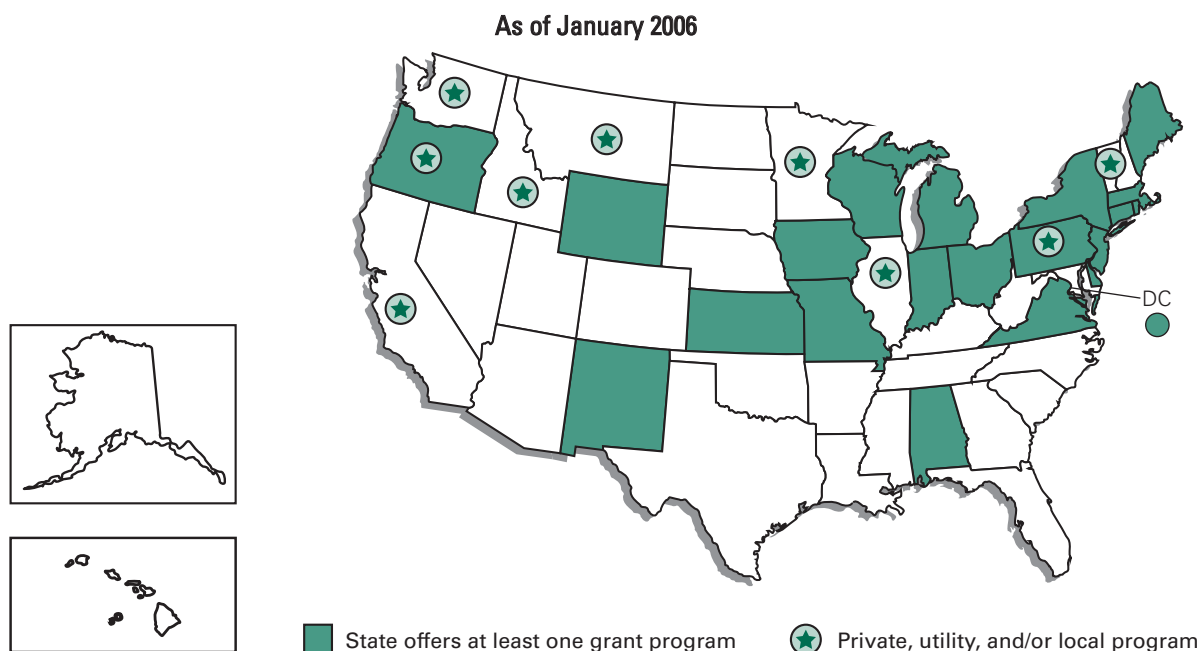
Utah offer income tax credits for energy production from CHP systems. Iowa, Nevada, New Mexico, and North Carolina limit their tax incentives to biomass projects, while the other states allow a broader range of CHP system designs (EPA 2005b).

States also offer tax incentives for energy efficiency investment. These incentives are typically offered as state income tax credits or deductions, but can also be structured as exemptions from state sales taxes on appliances or titling taxes on vehicles. The most active state in terms of tax incentives is Oregon, which maintains a set of business and residential tax incentives for energy efficiency measures. Other states with tax incentives for energy efficiency investment include Maryland, Indiana, Minnesota, New York, and Hawaii. (See the *State Examples* section on page 3-79 for more information.)

## Grants, Buy-Downs, and Generation Incentives

Grants, buy-downs, and generation incentives provide funding and incentives for developing energy efficiency and clean generation technologies. Typically, states promote energy efficiency measures through buy-downs (also known as rebates), and support clean generation through both buy-downs and generation incentives. Although a major source of funding for efficiency activities comes from PBFs, states also fund these activities through alternative sources including direct grants, and rebates and generation incentives provided by utilities. States administer their own funding and incentives programs designed to leverage utility programs and promote

**Figure 3.4.2: States with Grant Programs for Renewable Energy**



Source: DSIRE 2006b.

additional private sector investment. (For information about grants, buy-downs, and generation incentives funded through PBFs, see Section 4.2, *Public Benefits Funds for Energy Efficiency* and Section 5.2, *Public Benefits Funds for State Clean Energy Supply Programs*.)

**Grants.** With respect to renewable energy, state grants cover a broad range of activities and frequently address issues beyond system installation costs. To stimulate market activity, state grants cover research and development, business and infrastructure development, system demonstration, feasibility studies, and system rebates. Grants can be given alone or leveraged by requiring recipients to match the grant or to repay it. Grants can also be bundled with other incentives, such as low-interest loans. Grant programs promoting renewable energy technologies are administered by states, nonprofit organizations, and/or private utilities in 28 states (DSIRE 2005a).

State-appointed agencies are also finding ways to use limited funding for grants. For example:

- Massachusetts uses grant funding to stimulate residential green power purchases. For every dollar a residential green power purchaser spends on the incremental cost of green power, the state grants up to \$1 to the resident's local government for use in renewable energy projects and up to \$1 for renewable energy projects that serve low-income residents throughout the state. Renewable energy grants can range from tens of thousands to millions of dollars. In New Jersey, for example, the Renewable Energy and Economic Development program is funded at \$5 million, from which it provides grants ranging from \$50,000 to \$500,000 for market development activities.
- Pennsylvania's Energy Harvest program provides \$5 million annually for clean and renewable energy projects. Since its inception in May 2003, the Pennsylvania Energy Harvest Grant Program has awarded \$15.9 million for 34 advanced or renewable energy projects, and leveraged another \$43.7 million in private funds (PA DEP 2005). The 34 Energy Harvest projects will produce or conserve



the equivalent of 37,800 megawatts per hour a year (enough to power 5,000 homes) and will avoid 85,000 pounds of nitrogen oxide (NO<sub>x</sub>), 131,000 pounds of sulfur dioxide (SO<sub>2</sub>), 2,700 pounds of carbon monoxide (CO), and 10 million pounds of carbon dioxide (CO<sub>2</sub>) (PA DEP 2005).

Many programs also include grants for energy efficiency investment (and in some cases in-kind contributions such as direct installation of equipment or trade-in programs). Typically, the consumer does not directly invest in these programs. In California, the city of San Francisco's Peak Energy Program (SFPEP) provides funding for torchiere trade-in programs, multi-family direct installation of hard-wired compact fluorescent lighting (CFL) fixtures, and free replacement of refrigerator gaskets at grocery stores. Some states award financial grants directly. For example, the Oregon Energy Trust provides incentives of up to \$10,000 for homeowners and \$35,000 for businesses for the purchase of rooftop PV systems.

*Rebates (Buy-Downs).* Rebates, also called buy-downs, are provided by the state to the end user and are a common form of state financial incentive. Typically, rebates are funded by utility customers and administered by utilities, state agencies, or other parties, with oversight from public utility commissions (PUCs) or other state agencies.<sup>7</sup> Many states support their rebate programs through PBFs (see Section 4.2, *Public Benefits Funds for Energy Efficiency* and Section 5.2, *Public Benefits Funds for State Clean Energy Supply Programs*).

Rebate levels vary by technology and state. Twenty-two states administer renewable energy rebate programs or have utility- or locally administered rebate programs in the state (DSIRE 2005b). In addition to rebates for renewable energy, states also offer rebates for a wide range of energy efficiency measures, including lighting, refrigeration, air conditioning, agricultural, and gas technologies. About 20 states conduct energy efficiency programs, and most of these states offer rebates or similar kinds of incentives.

States frequently provide rebates for solar PV, but rebates are also provided for other technologies, such as wind, biomass, and solar thermal hot water. In general, rebates are provided on a per-watt basis, with the total rebate amount expressed either as maximum dollar amount or a maximum percentage of total system cost. In New York, the New York State Energy Research and Development Authority (NYSERDA) provides a \$4.00 to \$4.50 per watt rebate for solar PV and will cover up to 60% of the system's total installed cost. In California, the Emerging Renewables Program provides rebates for systems up to 30 kilowatts (kW). Rebates are \$2.80 per watt for PV systems and \$3.20 per watt for solar thermal and fuel cells. For wind systems, rebates are \$1.70 per watt for the first 7.5 kW with \$0.70 per watt thereafter. Rebates are provided only for equipment that is certified by the state (CEC 2005a).

Nevada offers a rebate program of \$3 per watt (2006 program year) for grid-connected PV installations on residences, small businesses, public buildings, and schools. Nevada's utilities, Nevada Power and Sierra Pacific Power, administer the rebate program. The renewable energy credits (RECs) produced by their customers' PV systems count towards the utilities' solar goals under Nevada's renewable portfolio standards (RPS) (DSIRE 2005b).

States have coordinated their rebate programs with those offered by municipal utilities, governments, and others. For example, in California, rebate programs administered by investor-owned utilities (IOUs) are often tied directly to the values contained in the Database for Energy Efficient Resources (DEER) Measure Cost Database. This database provides statistically averaged cost differentials between baseline equipment and the energy efficiency measure designed to replace it (for example, T-8 fluorescent lamps with electronic ballasts vs. T-12 lamps with magnetic ballasts). The incremental energy savings of each measure in the database is also provided (CEC 2005b). These data provide program planners with the necessary information to forecast energy savings

<sup>7</sup> A database of state utility sector efficiency programs can be found at: <http://aceee.org/new/eedb.htm>.

## Massachusetts Provides Grants and Rebates for Renewable Energy

The Massachusetts Technology Collaborative (MTC) administers grants and rebates in Massachusetts. With approximately \$25 million per year, the MTC manages programs that target a broad range of recipients. Eligible technologies include wind energy, fuel cells, hydroelectric, PV, landfill gas, and low emission advanced biomass power. The project site must be a customer of one of the investor-owned utilities in Massachusetts. In addition, it must be grid-connected and use 50% of the power on site. Programs include the following:

- *The Small Renewable Energy Rebate Program* provides rebates for PV, wind, and micro-hydro systems. Rebate levels vary by technology and system size.
- *The Green Building and Infrastructure Program* provides grants to support the installation of clean energy, particularly solar PV, in buildings such as schools. Initial grants of \$25,000 are provided for studies, followed by up to \$500,000 grants for system installation.
- *The Clean Energy Choice Program* provides tax incentives for customers' green power purchases and provides matching grants that benefit consumers' communities and low-income residents.
- *The Industry Support Program* makes direct investments to catalyze new product commercialization, works to build networks and provide services that better enable companies to access capital and other vital resources, and strives to lower barriers to success for entrepreneurs in the state.

of planned efficiency efforts, depending on market penetration levels. This helps provide stability and predictability in rebate programs, helping to create conditions for long-term market development and growth. However, in order to encourage and institutionalize renewable energy technologies and energy-efficient equipment and to provide industry with the stability required for market transformation, it is important for states to institute a gradual and predictable reduction in rebates over time.

In addition to rebates for renewable energy, states also offer rebates for a wide range of energy efficiency measures, including lighting, refrigeration, air conditioning, agricultural, and gas technologies. About 20 states conduct energy efficiency programs, and most of these states offer rebates or similar kinds of incentives. Typically, these rebates are funded by utility customers and administered by utilities, state agencies, or other parties, with oversight from PUCs or other state agencies. In most cases, utility bill charges are placed in a PBF; in a few states, programs are funded by utilities directly under utility commission directives. For example, Minnesota's Conservation Improvement Program (CIP), is funded by the state's utilities. (A database of state utility-sector efficiency programs can be found at: <http://aceee.org/new/eedb.htm>.)

*Generation Incentives.* In contrast to incentives that help finance initial capital costs (e.g., rebates and sales tax exemptions), states provide generation incentives on the basis of actual electricity generated. In their most straightforward form, generation incentives are paid on a per kWh basis. For example, in 2005, California began a pilot performance-based incentive (PBI) that provides incentive payments of \$0.50/kWh over the first three years of PV system operation. The rebate is based on the actual electricity generated by PV systems. System performance is measured using a revenue-quality meter. Participants report their system performance either through their utility or a Web-based, third-party reporting provider. The total dollar amount reserved for a system is based on the array capacity, PTC rating, and a 25% capacity factor. This reserve amount is likely to be higher than actual system performance, but any power generated above the actual amount will not be paid. In Pennsylvania, the Energy Cooperative, a nonprofit organization that is licensed as an electricity supplier by the Pennsylvania PUC, offers a Solar Energy Buy-Back program that pays its 6,500 members with 1 kW to 5 kW PV systems \$0.20/kWh for the output of their systems. The program purchased 70,740 kWh in 2004 (Energy Cooperative 2005).

### ***NO<sub>x</sub> Set-Asides for Energy Efficiency and Renewable Energy Projects***

Under the NO<sub>x</sub> Budget Trading Program in effect as of 2003 (Clean Air Act 1990 Part 96), 22 eastern states and Washington, D.C. allocate NO<sub>x</sub> allowances to large electric generating and industrial combustion units within state budgets. States may reserve allowances from the budget to address new units or to provide incentives for certain activities.

States can use one type of incentive, an EE/RE set-aside, to award NO<sub>x</sub> allowances for EE/RE and CHP projects. The allowances provide a financial incentive for projects that reduce energy demand or increase the supply of clean energy. To date, six states (Indiana, Maryland, Massachusetts, New Jersey, New York, and Ohio) have developed an EE/RE set-aside program, and Missouri has proposed a set-aside program. Thus, about one-third of the 22 affected states have elected to include an EE/RE incentive program. The size of the set-aside in each state ranges from 454 tons (Ohio) to 1,241 tons (New York) and from 1% to 5% of each state's NO<sub>x</sub> trading program budget (EPA 2005c).

Each state determines the projects that are eligible for allowance awards. Typical projects include:

- Installation of a new CHP system project (provided allowances have not already been distributed to the project from the new source set-aside).
- Renewable energy projects, including wind, solar, biomass, and landfill methane.
- Demand-side management actions either within or outside the source's facility (EPA 2005d).

As in the NO<sub>x</sub> budget trading program, states have the flexibility to include a NO<sub>x</sub> set-aside for EE/RE as part of their NO<sub>x</sub> allocation approach for the Clean Air Interstate Rule (CAIR) (EPA 2005e). CAIR establishes a cap and trade system for SO<sub>2</sub> and NO<sub>x</sub> in 28 states and Washington, D.C. Under CAIR, states may craft their allocation approach to meet their state-specific policy goals (EPA 2005e).

### ***Supplemental Environmental Projects***

An SEP is an environmentally beneficial project implemented through an environmental enforcement settlement. Under a settlement, a violator voluntarily agrees to undertake an SEP as a way to offset a portion of its monetary penalty. SEPs are commonly implemented through both federal and state enforcement actions. State SEPs can be a significant source of funding for new clean energy projects. There are many opportunities for states to implement clean energy SEPs through large and small enforcement settlements. Knowing the flexibility of a state's SEP policy (which may be different from EPA's SEP policy), making SEPs a routine part of the enforcement settlement process, and being aware of the opportunities for clean energy projects as SEPs are key ingredients for successfully increasing the number of clean energy projects funded through state SEPs. Depending on state and local needs, SEPs can involve the violator's facilities or can be a project that provides local benefits. For example, in response to a violation of air quality standards, a Colorado manufacturer agreed to fund an energy efficiency assessment at its facility and implement some of the assessment recommendations. In Maryland, in response to a violation of visible emissions standards, a utility installed PV systems on three public buildings in the county.

EPA's SEP toolkit provides information for state and local governments on undertaking energy efficiency and renewable energy projects. The toolkit includes information on general SEP requirements at federal and state levels, potential benefits from EE/RE SEPs, project examples, and general implementation guidance (EPA 2005a). (The toolkit is available at: [http://www.epa.gov/cleanenergy/pdf/sep\\_toolkit.pdf](http://www.epa.gov/cleanenergy/pdf/sep_toolkit.pdf).)



## Designing Effective Funding and Incentive Programs

When developing and implementing effective funding and incentive programs, states consider a variety of key issues including design principles, identifying key participants, assessing the level of funding, and determining program timing and duration. It is also important to consider interactions with federal and state policies and opportunities to coordinate and leverage programs.

### Design Principles

States have developed extensive experience in funding and incentives programs. While program design considerations are somewhat specific to the markets and technologies involved, four general design principles have emerged:

- Develop specific target markets and technologies based on technical and economic analyses of clean energy markets and technologies.
- Use financing and incentives as part of a broader package of services designed to encourage investments.
- Establish specific technical and financial criteria for clean energy investments.
- Track details of program participation, costs, and energy savings and production to enable evaluation and improvement.

In designing their funding programs, states assess their intended markets and other funding sources, particularly the competitive commercial financing options that are available to their target customers. State programs have been most successful when they target markets that currently receive little or no attention from the commercial financing industry, rather than competing with these private offerings. Alternatively, states can seek to augment the incentives offered through private financing by working with the financial industry to design effective programs that address market barriers other than lack of capital alone.

States have found that coordinating funding and incentives with other program policies results in

more effective programs and creates opportunities to leverage investments. For example, New Jersey offers a package of financial incentives, combined with its RPS and an REC program, which has reduced the payback period for solar home systems to less than five years (New Jersey 2005). Other program features that states bundle with financing and incentives include customer education and outreach, standardized and streamlined interconnection and permitting processes for clean energy production, and creation of effective partnerships with financial institutions, equipment providers, and installers.

### Participants

Participants include both public and private sector organizations. Public sector participants include state and local government agencies, school districts, and nonprofit organizations. Private sector participants include large corporations, small businesses, and individual residents. Depending on a state's energy-efficiency goals, budgets, and general policy acceptance, certain stakeholders might be targeted more directly than others during the initial policy rollout phase or over the entire life of the program.

Participants in funding and incentives programs and their typical roles and responsibilities include:

- *State Legislatures.* State legislatures pass bonds, authorize appropriations, and authorize incentives. They also authorize changes to state tax laws and state accounting and procurement rules that enable clean energy funding programs. State legislatures or executive branches can give authority to outsource or conduct performance contracting in any facilities under their fiscal authority.
- *State Energy Offices and PUCs.* Energy offices and PUCs administer financing programs, provide technical assistance, and measure and evaluate state-funded projects to ensure that intended results are being achieved.
- *Utilities.* Utilities administer related programs that states and energy customers can leverage, such as rebates and buy-downs.
- *Third Parties.* Third parties such as nonprofit organizations serve as financing centers to manage

funds (e.g., the Iowa Energy Investment Corporation) and can also serve as “trade allies” (e.g., equipment installers and ESCOs) and lending institutions.

- *Businesses.* Businesses apply for funding and incentives and purchase and/or use clean energy technologies.
- *Residents and Other Consumers.* Consumers apply for funding and incentives and purchase and/or use clean energy technologies.

## Funding

State clean energy programs that offer financing or financial incentives have used a wide range of funding sources, including:

- *Utility Budgets.* In states that have established utility incentives for demand-side resources, utilities provide funding support for clean energy as part of their responsibility to deliver least-cost reliable service to their customers. Utilities can fund these resources in different ways, such as within their resource planning budgets or as a percent of total revenues, as directed by state policy.
- *Petroleum Violation Escrow (PVE) Funds.* Legal settlements stemming from 1970s-era oil pricing regulation violations generated billions of dollars, which states used primarily during the 1980s and 1990s for clean energy programs.
- *PBFs.* These are typically funded by small charges on utility customer bills (see Section 4.2, *Public Benefits Funds for Energy Efficiency* and Section 5.2, *Public Benefits Funds for State Clean Energy Supply Programs*).
- *Annual Appropriations.* Some states support energy financing and incentive programs with general state revenues appropriated through the annual budget process.
- *Bonds.* States have used their bond issuance authority to raise capital for lending programs. In some cases, loan repayments are applied to bond debt service.
- *Environmental Enforcements and Fines.* States that collect fines and penalties from environmental enforcement actions can use the proceeds to

support clean energy financing and incentives. Alternatively, funds can come directly from a violator, through a supplemental environmental project.

- *CO<sub>2</sub> Offset Programs.* States have used their CO<sub>2</sub> offset programs as a source of funding. For example, Oregon's 1997 state law HB 3283 required new power plants in the state to offset approximately 17% of their CO<sub>2</sub> emissions. Power plants can do this directly or by paying the Oregon Climate Trust, which uses the funds to support offset projects, including sequestration, renewable energy projects, and energy efficiency projects. The program currently does not recognize CHP as an efficiency technology either in calculating the required offsets or in the generation of offsets. Washington and Massachusetts have similar offset funding programs.

## Funding Levels

When designing financing and incentive programs, states have found that it is important to determine the financing limits and incentive levels that are appropriate to market conditions. Ideally, incentives provide just enough inducement to generate significant new market activity and limit financial risk.

For loans or other credit-related incentives such as loan guarantees, public financing typically pays for just enough of the project cost to motivate private investment. If public financing covers too much of a project, it can promote projects that are not financially sound. It is believed that if investors invest a significant amount of their own money in the project, they will be motivated to make it succeed. Another method is to buy down the interest rates. This is often attractive to both businesses and homeowners. While different than loan guarantees, buy-downs can help put monthly payments within budgetary reach.

For financial incentives such as grants or rebates, the amount offered is often set at a level just large enough to induce private investment. Incentives that are too high can distort market behavior so that the technology does not sustain market share after the incentives end.

## Timing and Duration

Another key consideration when developing funding and incentives programs is determining how long the program will be in effect and whether funding will be available on a consistent year-to-year basis. State incentive and funding programs have been more effective when they have been sustained and consistent over time (e.g., the Texas LoanSTAR program) (Prindle 2005). Several years are typically required for a significant effort to become known and accepted in the marketplace. States with effective programs typically have established five- to 10-year authorizations for their programs. In some markets, especially where projects require long lead times for design, permitting, construction, and underwriting, program cycles may be longer. In other cases—for example, in Oregon where faster-turnover consumer products are involved—programs can be conducted on a shorter time frame. Programs involving incentives, loans, or other forms of financial assistance that have been offered on a short-term basis have failed to allow time for markets to respond (Prindle 2005).

The appropriate duration of an incentive or financing program also depends on the characteristics of the target market and the goals of the program. A revolving loan program can continue indefinitely, since the fund typically requires a single initial capitalization. If the size of the target market is large relative to the size of the fund principal, the program can run productively for many years. In other cases, an incentive effort might be targeted at acquiring a specific level of resources in a given time frame; in such cases, funding levels would tend to be higher and the program duration shorter. Incentives are gradually reduced and ultimately eliminated when the technology or practice becomes standard practice in the target market.

## Interaction with Federal Policies

Several kinds of federal policies and programs can interact with incentive and financing programs. These programs offer technical assistance, technical specifications for eligible products or projects, federal funding, and opportunities to coordinate delivery of state efforts with regional and national programs. Examples of federal initiatives with which state programs can form partnerships or otherwise interact include:

- **ENERGY STAR.** States have used ENERGY STAR equipment and product specifications as the basis for qualification for incentives or financing. Since the late 1990s, EPA and DOE have worked with utilities, state energy offices, and regional non-profit organizations to help them leverage ENERGY STAR messaging, tools, and strategies and to enhance their local energy efficiency programs. By working with EPA and DOE and using ENERGY STAR as their local platform, these organizations initiate their programs more quickly; increase their program uptake and impact; help drive local market share for ENERGY STAR-qualified products, homes, buildings, and related best practices; contribute to long-term change in the market for these products and services; and deliver on local objectives to increase energy efficiency, maintain electric reliability, and improve environmental quality. For example, states such as Texas, New Jersey, and Vermont have used the ENERGY STAR Homes program as the basis for financial incentives to home builders. In the Northeast, several states have used the ENERGY STAR criteria for clothes washers as the basis for a regionally coordinated network of incentive programs (for more information, see <http://www.energystar.gov/>).
- **Green Power Partnership.** The Green Power Partnership is a voluntary program developed by EPA to boost the market for clean power sources. Although the program does not provide funding for green power purchases, state and local governments that participate in the partnership receive technical assistance and can use the program's

## Best Practices: Designing Clean Energy Funding and Incentive Programs

The best practices identified below address common design elements for developing clean energy funding and incentives programs, based on experiences of states that have implemented successful programs.

- Conduct robust technical and economic analyses to screen technologies and program designs and to ensure that the program is designed to achieve significant impacts and is cost-effective.
- Conduct market research to understand customer preferences, market structures, and other factors that will affect program success, as appropriate.
- Set technical requirements for eligible equipment and practitioners to encourage significant energy savings and system performance (for renewables and CHP) and to ensure that measures and projects receive appropriate quality control.
- Consider how financial incentives can complement or leverage other state programs and policies and federal financial incentives.
- Provide ongoing public education about clean energy technologies and available incentives.
- Provide stable, long-term program funding where appropriate and plan for decreasing funding as markets change.
- Keep program design and procedures as simple as possible, and make it easy to participate.
- Cooperate with utilities, industry allies, and market participants to reach key market “gateways.”
- Establish a consistent but cost-effective quality assurance mechanism.
- Incorporate incentives into an overall market development strategy; include installer training and certification.
- Develop a coordinated package of incentives and other services, including:
  - For energy efficiency: customer promotions, industry ally partnerships for marketing, training, and education.
  - For renewable energy: interconnection standards and net metering.
- Provide for hard-to-reach market segments, including public facilities, low-income households, small businesses, and nonprofit organizations.
- Design the program to be valuable, by creating program tracking and reporting systems that allow review of completed projects.
- Allow flexibility for program modifications.

*Green Power Purchasing Guide* to inform their green power purchasing decisions. (For more information, see <http://www.epa.gov/greenpower/index.htm>.)

- *The Energy Policy Act of 2005 (EPAAct 2005)* provides tax credits for energy-efficient appliances and vehicles, and extends the PTC for renewable energy generation to 2007. EPAAct 2005 also authorizes funding to support state energy efficiency programs, although many of the provisions will require congressional appropriations.

The Energy Efficient Appliance Rebate Program authorizes matching appliance rebates to be operated by state energy offices. Through this program,

states have an alternative source of funds and a state rebate program to purchase ENERGY STAR appliances to replace existing appliances.

Under the Federal Production Tax Credit, defined renewable power technologies, such as wind, geothermal, and other grid-scale technologies, are eligible for federal credits for each kWh generated. State incentives have been designed to coordinate with the PTC to help spur renewable energy development in the state (LBNL 2002). For example, MTC invests in renewable energy in the state (for more information, see: <http://www.mtpc.org>).

## Interaction with State Policies

States have combined their financial incentives with other state clean energy programs and policies to deliver even greater energy and cost savings. Funding and incentives programs interact with many state policies, including:

- **PBF Programs.** PBFs can be used as a source of direct incentives, such as rebates, and also as a source of financing assistance. PBFs are funds typically created by levying a small fee on customers' utility bills. PBFs in 17 states and Washington, D.C. support energy efficiency programs, and PBFs in 16 states are used to promote renewable energy. (See Section 4.2, *Public Benefits Funds for Energy Efficiency*, and Section 5.2, *Public Benefits Funds for State Clean Energy Supply Programs*.)
- **Portfolio Management.** Portfolio management refers to an electric utility's energy resource planning and procurement strategies. Effective portfolios are diversified and include a variety of fuel sources and generation and delivery technologies and financial incentives to encourage customers to reduce their consumption during peak demand periods. Portfolio management delivers clean air benefits by shifting the focus of procurement from short-term, market-driven, fossil fuel-based prices to long-term, customer costs and customer bills by ensuring the consideration of energy efficiency and renewable generation resources. (See Section 6.1, *Portfolio Management Strategies*.)
- **Environmental Enforcement Cases.** Under a settlement, a violator may voluntarily agree to undertake an SEP (an environmentally beneficial project) as a way to offset a portion of its monetary penalty (see *Supplemental Environmental Projects*, on page 3-83).
- **Lead by Example Programs.** Many states lead by example through the implementation of programs that achieve energy cost savings within their own facilities, fleets, and operations. Lead by example programs include innovative financing mechanisms, such as revolving loan funds, tax-exempt master lease-purchase agreements, lease revenue bonds, performance contracting, and procurement policies and accounting methods (for more information, see Section 3.1, *Lead by Example*).
- **RPS.** In states with RPS requirements, financial incentives can be used strategically to support the development of more renewable energy generation in the state. Some states have decided to use financial incentives to support only renewable energy generation that occurs in addition to the state's RPS requirements. States can also add efficiency to the RPS, as in Pennsylvania, or create a separate efficiency performance standard, as in Connecticut. (See Section 5.1, *Renewable Portfolio Standards*.)
- **Interconnection, Net Metering, and Standby Rates.** Some states have modified their interconnection standards, net metering rules, and/or standby rate structure to facilitate easier interconnection for renewable energy systems, increase their profitability, and provide incentives for clean energy. In states where interconnection issues have not been addressed, renewable energy generators may face hurdles with connecting to the grid and may not have the financial incentives required to ensure the system is sufficiently profitable. Net metering rules enable renewable energy system owners to sell excess production to the utility at retail rates rather than wholesale rates, effectively providing a per-kWh incentive (see Section 5.4, *Interconnection Standards*). Some states are also reviewing utility standby rates to ensure that they are reasonable and appropriate and do not unnecessarily limit the development of clean and efficient onsite generation. (See Section 6.3, *Emerging Approaches: Removing Unintended Utility Rate Barriers to Distributed Generation*.)
- **Encouraging Green Power.** Some states stimulate the green power market by establishing mandates for state government facilities to satisfy a percentage of their electricity demands with green power (e.g., RECs or green power electricity products). (See Section 3.1, *Lead by Example*, and Section 5.5, *Fostering Green Power Markets*.)



## Implementation and Evaluation

### Implementing and Administering Funding and Incentives Programs

The most appropriate agency to implement and administer funding and incentive programs varies, depending on the state and type of incentive program offered. In most states, the state energy office manages the program. Other agencies involved in program implementation include the state department of general services, treasury department, and others. In some states (e.g., Oregon and Iowa), a private nonprofit organization implements and evaluates funding and incentives programs.

Objectives for the agency administering the incentives program include (Brown et al. 2002):

- Create sufficient budget authorizations and appropriations to ensure the effectiveness of the program, measured against actionable performance criteria where possible.
- Allow for an adequate time period (typically five to 10 years) for the funding to influence the market.
- Determine an appropriate incentive level for targeted technologies and markets (e.g., incentives should be large enough to generate the investment needed to meet program goals and moderate enough to stay within the budget).
- Establish funding caps per project and per customer to keep programs affordable and sustainable.
- Focus on high-efficiency technologies and practices by setting technical criteria that target the high end of the target market.
- Be flexible with respect to who receives the incentives so that the most appropriate parties can participate.
- Incorporate sufficient reporting requirements to document program results accurately and prevent program abuse.
- Budget adequately for evaluation and conduct evaluations on regular cycles. Allow for selected detailed audits of larger and more complex projects.

The implementing/administering agency is also responsible for ensuring that an adequate program support structure is in place. This might entail the following actions:

- Allocate sufficient personnel and time for program administration.
- Collaborate with other agencies.
- Establish agreements with equipment installers, manufacturers, and service providers.
- Collaborate with utilities.
- Conduct public outreach and education campaigns.
- Conduct periodic program evaluations and take corrective measures, if necessary.

#### Best Practices: Implementing Funding and Incentive Programs

- Consult with other states to gain the benefit of their experiences with program implementation details.
- Select the most appropriate delivery organization(s) for program delivery.
- Approve long-term funding cycles (five to 10 years) to enable programs to achieve significant market acceptance and impacts.
- Maintain stakeholder communications via working relationships and advisory groups.
- Provide for adequate program tracking and reporting systems to enable effective evaluation and mid-course program corrections.

### Evaluation

In general, states evaluate their state financial incentives programs based on quantitative metrics, such as the amount of money granted, energy savings, and the number of systems installed. In addition, the administrative process is frequently evaluated to track data such as the number of days it takes the state to process an application. While more challenging, states also attempt to determine if financial incentives have the desired effect on the marketplace (i.e., understanding the causal relationship between the incentives and the changes occurring in the market, accounting for “free riders” and estimating the net

energy savings impacts achieved by incentives). Standardized reporting requirements and independent measurement and verification (M&V) of program impacts provide the information required to redirect future investment dollars for optimal effectiveness.

States have found that M&V methods are critical to ensuring that sufficient projected savings are realized to determine if funding and incentive investments provide their expected return. For simpler measures with well-established savings performance records, a “deemed savings” approach can be used. For more complex measures, newer technologies, and larger projects, a project-specific M&V approach is warranted. (For more information on M&V methods, see Section 4.1, *Energy Efficiency Portfolio Standards*, and Section 4.2, *Public Benefits Funds for Energy Efficiency*.) Several states have established detailed procedures and technical support documents describing “deemed savings” methods, including:

- The California Measurement Advisory Council (CALMAC) (CALMAC 2005).
- *Efficiency Vermont Technical Reference Users Manual*, published by Efficiency Vermont (2004).

For project-specific M&V methods, the following resources are helpful:

- *The International Program Measurement and Verification Protocol* (IPMVP) (IPMVP 2005).
- The Texas PUC’s *Measurement and Verification Guidelines* (Texas PUC 2005).
- DOE Federal Energy Management Program (FEMP) guidelines, Measurement & Verification Resources and Training Opportunities (Webster 2003).

Several states have conducted evaluations of their funding and incentives programs. For example, the California Public Utilities Commission (CPUC) evaluates the Self-Generation Incentive Program (SGIP) each year to assess process, impact, and cost-effectiveness (CPUC 2005b). Part of the state’s 2004 evaluation included interviews with 47 SGIP cogeneration system owners regarding their system implementation and operations experiences during the year. The evaluation found that, while the SGIP is

very well subscribed, and program participants are on average satisfied with their SGIP systems, many cogeneration systems do not appear to be performing as well, or operating for as many hours, as originally expected (CPUC 2005b).

NYSERDA evaluated its DG/CHP program to understand how the internal processes of the program have progressed, assess the progress of and barriers to technology transfer, and determine end users’ and consultants’ levels of satisfaction with the program. The evaluation involved a review of current savings procedures and data tracking, interviews with DG/CHP program managers, and a review of data summaries for projects. The evaluation results revealed that staff and participants are enthusiastic about the program and that many nonparticipants also have positive feelings about it. Several recommendations for improvements were received, including making the proposal and selection process

### Best Practices: Evaluating Funding and Incentive Programs

Evaluating funding and incentives programs requires tracking program use, cost, and energy savings, as well as providing easy public access to program information.

- Evaluate programs regularly, rigorously, and cost-effectively.
- Use methods proven over time in other states, adapted to state-specific needs.
- Provide “hard numbers” on quantitative impacts and process feedback on the effectiveness of program operations and ways to improve service delivery.
- Use independent third parties, preferably with reputations for quality and unbiased analysis.
- Measure program success against stated objectives, providing information that is detailed enough to be useful and simple enough to be understandable to nonexperts.
- Provide for consistent and transparent evaluations across all programs and administrative entities.
- Communicate results to decisionmakers and stakeholders in ways that demonstrate the benefits of the overall program and individual market initiatives.

less confusing, initiating better communication with utilities about interconnection and standby rate charges, and developing an incentive program with stable funding to allow for replication of projects (NYSERDA 2004).

## State Examples

The following examples illustrate effective state programs, innovative approaches, and program results for each of the key types of financing and incentive programs.

### Revolving Loan Funds

#### *Texas LoanSTAR*

Texas LoanSTAR, also known as the Loans to Save Taxes and Resources program, began in 1988 as a \$98.6 million retrofit program for energy efficiency in buildings (primarily public buildings such as state agencies, local governments, and school districts). The program is now funded at a minimum of \$95 million annually. The original funding for the program was from PVE funds. The Texas State Energy Conservation Office (SECO) administers the funds through DOE's State Energy Program.

SECO provides extensive program oversight and documentation, ensuring that the data used to establish claims for energy savings are accurate. SECO develops procedures and guidelines that allow LoanSTAR to prove that the financed energy retrofits would pay for themselves. As part of its quality control, SECO:

- Issues energy assessment guidelines.
- Trains energy engineering consulting firms on audit techniques and LoanSTAR guidelines.
- Develops protocols to meter and monitor each LoanSTAR project to track pre- and post-retrofit energy consumption.
- Develops new methods to analyze energy savings from retrofits.

Public agencies in Texas have realized substantial savings on their energy bills through LoanSTAR that continue to accrue year after year. As measured from the beginning of the program through December

2004, total savings amount to almost \$152 million, on an investment of \$123 million. This amount reflects measured savings from 1989, when the first loan was funded, through 2000, and stipulated savings from 2001 through December 2004. Total savings are calculated directly from metered and monitored energy consumption data collected before and after the energy retrofits. Stipulated savings are used for buildings where the energy-saving measures contribute year after year at an established level but where monitoring equipment is no longer in place (DOE 2005).

Web site:

<http://www.seco.cpa.state.tx.us/lr.htm>

#### *Iowa Energy Bank*

Iowa's Energy Bank program provides technical and financial assistance to public and nonprofit facilities for installing cost-effective EE/RE improvements. This energy management program uses energy cost savings to repay financing for energy management improvements. It targets public schools, hospitals, private colleges, private schools, and local governments. The Iowa Energy Bank helped finance \$150 million in energy efficiency improvements in state and local facilities from 1989 through 2001.

The Iowa Energy Bank program starts with an initial energy audit. This assessment may be an extensive energy audit, or for small facilities, a simpler assessment of energy consumption and potential improvements by Energy Bank program staff. If necessary, an engineering analysis is completed for the facility by a qualified consultant. A six-month, interest-free loan is available to pay the up-front expense of the energy audit and engineering analysis. Full-term, municipal lease-purchase agreements or capital loan notes from private lending institutions are available at interest rates negotiated for the client by the Iowa Department of Natural Resources (DNR). All clients of the program are eligible for financing of cost-effective energy management improvements.

Web site:

<http://www.state.ia.us/dnr/energy/MAIN/PROGRAMS/BEM/EBANK/index.html>

### ***Montana Alternative Energy Loan Fund***

Montana's revolving loan fund, established in May 2001, initially provided up to \$10,000 (at a 5% interest rate in 2004) to individuals and small businesses for small renewable energy systems up to 1 MW in size. In March 2005, the Montana Legislature passed a bill that amended the loan program, raising the maximum loan amount to \$40,000 and extending the repayment period from five years to 15 years. As of 2004, the Alternative Energy Loan Fund has more than \$425,000 available for disbursement to loan applicants. Financial interest accruing to the fund, as well as interest generated from loan repayments, is re-deposited into the fund to sustain the program.

The fund is managed by the Montana Department of Environmental Quality (DEQ) and is supported by penalties from air quality violations in Montana. Eligible resources include wind, solar, geothermal, fuel cells, biomass, hydroelectric, and solid waste methane. Montana also provides a 35% investment tax credit for businesses that manufacture alternative energy generating equipment, use energy from alternative energy generating equipment, or install net metering equipment for connecting alternative energy generation systems to the electrical grid (Montana DEQ 2005). The 2005 law also added local government agencies, universities, and nonprofit organizations to the list of eligible sectors.

#### **Web site:**

<http://www.deq.state.mt.us/energy/Renewable/altenergyloan.asp>

## **Energy Performance Contracting**

### ***Washington***

In 2001, the Washington legislature adopted legislation requiring all state facilities to conduct energy audits to identify energy savings opportunities and to use performance contracting as their first option for achieving those savings (Washington HB 2247 2001). This law has led to a surge in performance contracting activity: \$100 million has been invested in project implementation by the private sector, with net savings of over \$8.3 million annually.

The Washington Department of General Administration (DGA) energy team has designed an energy performance contracting (EPC) program specifically for state agencies, colleges and universities, cities and towns, counties, school districts, ports, libraries, hospitals, and health districts. The EPC program provides assistance to public facilities in completing energy performance contracting projects and includes free preliminary audits and consulting services. The program complies with competitive statutory requirements to save time and money. The DGA helps state agencies qualify for the low-interest state treasury financing that is available for EPC projects.

## **Tax Incentives**

### ***Oregon***

The Oregon DOE offers BETCs and RETCs to Oregon businesses and residents that invest in qualifying energy-efficient appliances and equipment, recycling, renewable energy resources, sustainable buildings, and transportation (e.g., alternative fuels and hybrid vehicles). The BETC is for 35% of the eligible project costs and applies to the incremental cost of the system or equipment that is beyond standard practice. The RETC varies depending on the type of equipment purchased and amount of energy savings. Through 2004, more than 12,000 Oregon energy tax credits worth \$243 million have been awarded. Altogether, those investments save or generate energy worth about \$215 million a year (Oregon DOE 2005a). Business owners who pay taxes for a business site in Oregon are eligible for the tax credit. Oregon non-profit organizations, tribes, or public entities that partner with an Oregon business are also eligible, as are residents who have an Oregon tax liability.

The BETC offers an innovative pass-through option, which allows a project owner to transfer the 35% BETC project eligibility to a pass-through partner for a lump-sum cash payment. The pass-through option rate for five-year BETCs (effective October 1, 2003) is 25.5%. The pass-through option rate for one-year BETCs (those with eligible costs of \$20,000 or less) is

30.5%. The Oregon Department of Energy sets these pass-through option rates (Oregon DOE 2005a).

**Web site:**

<http://egov.oregon.gov/Energy/CONS/BUS/BETC.shtml>

### **New York**

New York operates three individual tax credit programs in addition to its suite of PBF-funded programs. The state began its Green Building Tax Credit Program in 2002. The income tax incentive is intended to spur growth of the green buildings market, including energy efficiency measures and incorporation of solar energy. This was the first state program of its kind and has been adapted by several other states. NYSERDA and the New York State Department of Environmental Conservation (DEC) administer the program. \$25 million is available annually for the tax credit for buildings greater than 20,000 square feet (Brown et al. 2002). The PV credit is for 100% of the incremental cost of "building-integrated" PV modules (20% every year over a five-year period) with a cap of \$3 per watt.

In addition, New York provides a personal income tax credit for solar PV systems. The credit is for 25% of equipment and installation costs, with qualified expenditures capped at \$6 per watt. Any portion of the system cost that is funded by a grant (from any source) cannot be counted toward the tax credit.

New York also provides a 15-year property tax exemption for solar, wind, and biomass systems installed before January 1, 2006.

**Web site:**

<http://www.dec.state.ny.us/website/ppu/grnbldg/>

## **Grants, Buy-Downs, and Generation Incentives**

Grants, buy-downs, and generation incentives provide funding and incentives to invest in energy efficiency and clean generation technologies. Typically, energy efficiency measures can be promoted through buy-downs (also known as rebates), while clean generation is supported through buy-downs and generation incentives.

### **California**

California operates a rebate program and a generation incentive program that, together with its PBF-funded Emerging Renewables Program, cover a broad range of renewable energy technologies from small customer-sited PV systems to large commercially owned wind and biomass facilities. (For more information on California's generation incentives program, the Supplemental Energy Payments program, and Emerging Renewables Program supply, see Section 5.2, *Public Benefits Funds for State Clean Energy Supply Programs*.)

The SGIP provides rebates for systems over 30 kW and up to 5 MW in size, including microturbines, small gas turbines, wind turbines, PV, and fuel cells. The program was authorized in 2001 by the CPUC and extended in 2003 by the state legislature. It provides \$125 million per year for program administration and customer incentives. Funds are collected through an electricity distribution charge that is separate from the public goods charge and administered by the state's four investor-owned utilities. The rebate amounts vary depending on the technology. The rebate for solar PV, for example, is \$3.50 per watt. As with the Emerging Renewables Program (see Section 5.2, *Public Benefits Funds for State Clean Energy Supply Programs*), the SGIP is available for service customers in investor-owned utility territories. The SGIP offers incentives to encourage customers to produce electricity with microturbines, small gas turbines, wind turbines, PV, fuel cells, and internal combustion engines. The incentive payments range from \$1 per watt to \$4.50 per watt, depending on the type of system. CHP systems are eligible for the lowest incentive payment. CHP systems must be



between 30 kW and 5 MW to qualify. The SGIP has been instrumental in the increasing the number of small PV (between 30 kW and 1 MW) and CHP systems (5 MW or smaller) in the state. As of 2004, the program has supported 388 systems (235 PV, 1 wind turbine, 2 fuel cells, and 150 CHP systems) with a total online capacity of 103 MW, including 82 MW of PV capacity (CPUC 2005b). As shown in Figure 3.4.3, the total grid-connected PV capacity installed in California in 2005 was more than 130 MW (CEC 2005c).

**Web sites:**

<http://www.ora.ca.gov/distgen/selfgen/sgips/index.htm>

[http://www.cpuc.ca.gov/static/energy/electric/050415\\_sceitron+sgip2004+impacts+final+report.pdf](http://www.cpuc.ca.gov/static/energy/electric/050415_sceitron+sgip2004+impacts+final+report.pdf)

### New York

NYSERDA implements a grant program to assist companies in developing, testing, and commercializing renewable energy technologies manufactured in New York. The program focuses on product and technology development rather than on installation of individual renewable energy systems. Projects are selected based on whether they will be commercially competitive in the near term and the ability of the company to achieve specific performance and quality milestones. Eligible technologies include solar thermal, PV, hydro, alternative fuels, wind, and biomass.

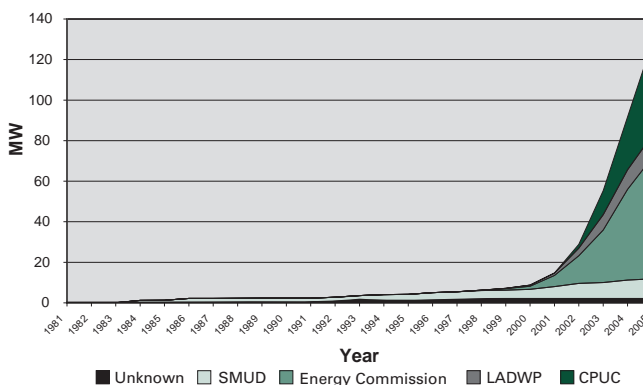
**Web site:**

<http://www.nyserda.org/>

### Washington

Senate Bill 5101 (S.B.5101), signed in May 2005, established a base production incentive of \$0.15/kWh (capped at \$2,000 per year and roughly tailored to the yearly market output of a typical 3.5 kW PV system) for individuals, businesses, or local governments generating electricity from solar power, wind power or anaerobic digesters—the first use of this approach in a U.S. state. The incentive amount

**Figure 3.4.3: Grid-Connected PV Capacity Installed in California (cumulative)**



Source: CEC 2005c.

paid to the producer is adjusted based on how the electricity was generated by multiplying the incentive (\$0.15/kWh) by the economic multipliers shown in Table 3.4.1.

The economic multipliers favor equipment manufactured in Washington, with the goal of developing a renewable manufacturing industry in the state. The incentives apply to power generated as of July 1, 2005 and remain in effect through June 30, 2014.

The Washington Department of Revenue (DOR) is responsible for submitting a report measuring the impacts of this legislation, including any change in the number of solar energy system manufacturing companies in Washington and the effects on job creation (e.g., the number of jobs created for Washington residents).

Publicly and privately owned utilities in Washington will pay the incentives and earn a tax credit equal to the cost of those payments. The credit may not exceed \$25,000 or 0.025% of a utility's taxable power sales, whichever is larger. Increased sales tax revenues from an expanded renewable energy industry are expected to offset reductions in revenues from utility taxes (Broehl 2005, Washington 2005).

**Table 3.4.1: Economic Multipliers Used for Washington's Production Incentive Program**

Solar modules manufactured in Washington	2.4
Solar and wind generation equipped with inverters manufactured in Washington	1.2
Anaerobic digester and other solar equipment or wind generator equipment with blades manufactured in Washington	1.0
All other electricity generated by wind	0.8

Source: Washington 2005.

## NO<sub>x</sub> Set-Asides

### New York

The New York State DEC administers the NO<sub>x</sub> Budget Trading Program and allocates the state's NO<sub>x</sub> emission allowances, which are partially set aside for energy-efficient projects. In 2003, the size of the set-aside was 3% of the state's NO<sub>x</sub> trading program (1,241 tons). Sites that meet the emissions allowances criteria may apply for the allowances and then sell them to other NO<sub>x</sub>-emitting sources for cash. Eligible sites include end-use energy efficiency projects, renewable energy projects, in-plant energy efficiency projects, and fossil fuel-fired electricity generating units that produce electricity more efficiently than the annual average heat rate attributable to all fossil fuel-fired electricity generated within New York State.

Web site:

<http://www.dec.state.ny.us/>

## Supplemental Environmental Projects

### Colorado

The state of Colorado adopted an SEP policy as part of its environmental enforcement and compliance assurance strategy. Colorado's Department of Public Health and Environment (CDPHE) uses decision criteria on a case-by-case basis to determine whether an SEP is appropriate. During routine inspections in 2000, a large Denver-based industrial

gas compression company was found in violation of chlorofluorocarbon (CFC) emission regulations. The company was assessed a noncompliance fee of \$30,000 and a civil penalty of \$395,000. Through a settlement agreement with CDPHE, the company agreed to implement an SEP to reduce air pollution.

Under the settlement agreement, the company agreed to pay a mitigated civil penalty—80% of the total, or \$303,360—into an interest-bearing escrow account managed by Public Service of Colorado. The SEP will now fund five years of wind energy purchases, or approximately 2,426,880 kWh of electricity. The agreement also stipulates that the energy comes from new wind generation facilities. Public Service of Colorado must use funds remaining in the escrow account after the fifth year (2005) to continue purchasing wind power. Interest that accrues on the escrow account is similarly invested.

Environmental and health benefits include avoided emissions of:

- 3,640 metric tons of CO<sub>2</sub>
- 73 metric tons of SO<sub>2</sub>
- 97 metric tons of NO<sub>x</sub>

These emission reductions are equivalent to avoiding 58.2 million vehicle miles per year (NREL 2003).

The SEP wind purchase also instituted a process for streamlining future renewable energy purchases at the Public Service of Colorado. This will provide substantial administrative savings to both providers and customers.

Web site:

[http://www.cdphe.state.co.us/el/cross\\_media/seps.html](http://www.cdphe.state.co.us/el/cross_media/seps.html)

## What States Can Do

States have diversified what were originally simple grant or loan programs into a broader set of funding and incentive programs that encourage specific markets and customer groups to invest in energy efficiency and clean supply projects. The information in this *Guide* describes best practices for design, implementation, and evaluation; summarizes a wide range of state experiences with funding and incentive programs; and offers a variety of information resources on funding and incentive strategies. Based on these state examples, action steps for states that want to establish their own funding and incentives programs or strengthen and expand existing programs are described below.

## Action Steps for States

States interested in creating or expanding clean energy funding and incentive programs can take the following steps:

- *Develop an Inventory of Current Financing and Incentive Programs.* Review existing programs and identify the need for new or expanded offerings. Conduct market research, as necessary, to identify these needs.
- *Design Funding and Incentive Programs Based on the Best Practices Developed by Other States.* States' experiences with funding and incentive programs provide a rich source of information on how to develop successful programs.
- *Identify and Secure Funding Sources.* This can be done via legislative and administrative initiatives, as appropriate. Seek to coordinate program targets and information collection efforts to avoid overlap and duplication.
- *Conduct Rigorous Evaluation.* Upon completion, report the results to policymakers, industry, and the public.

## Information Resources

### Information About States

Title/Description	URL Address
<b>The Database of State Incentives for Renewable Energy (DSIRE).</b> This database contains information on federal, state, and local incentives that promote renewable energy and energy efficiency. It provides information for all 50 states and is updated regularly.	<a href="http://www.dsireusa.org">http://www.dsireusa.org</a>
<b>Innovation, Renewable Energy, and State Investment: Case Studies of Leading Clean Energy Funds.</b> This Lawrence Berkeley National Laboratory (LBNL) Web site contains case studies of various state clean energy funds.	<a href="http://eetd.lbl.gov/ea/EMS/reports/51493.pdf">http://eetd.lbl.gov/ea/EMS/reports/51493.pdf</a>
<b>The National Renewable Energy Laboratory (NREL), Case Studies on the Effectiveness of State Financial Incentives for Renewable Energy.</b> This NREL report presents state case studies on financial incentives for renewable energy. NREL/SR-620-32819. Gouchoe, S., V. Everette, and R. Haynes. 2002. NREL, DOE. September (vi).	<a href="http://www.nrel.gov/documents/profiles.html">http://www.nrel.gov/documents/profiles.html</a>
<b>Performance Contracting Legislation By State.</b> This Oak Ridge National Laboratory Web site contains information on performance contracting legislation by state. The site includes links to legislation and state performance contracting legislation.	<a href="http://www.ornl.gov/info/esco/legislation/">http://www.ornl.gov/info/esco/legislation/</a>
<b>State Environmental Resource Center Energy Efficiency Standards.</b> This Web site offers the tools to bring energy efficiency standards to individual states. These tools include a model bill, talking points, press clips, a fact pack, links, and other background information.	<a href="http://www.serconline.org/efficiencystandards/pkg_frameset.html">http://www.serconline.org/efficiencystandards/pkg_frameset.html</a>
<b>Union of Concerned Scientists.</b> This report assigns grades to each of the 50 states based on their commitment to supporting wind, solar, and other renewable energy sources. 2003. Plugging In Renewable Energy: Grading the States. May. Accessed September 14, 2005.	<a href="http://www.ucsusa.org/clean_energy/clean_energy_policies/plugging-in-renewable-energy-grading-the-states.html">http://www.ucsusa.org/clean_energy/clean_energy_policies/plugging-in-renewable-energy-grading-the-states.html</a>

## General Information

Title/Description	URL Address
<b>Designing Financial Incentives</b>	
<b>CESA Year One: A Report on Clean Energy Funds in the U.S. 2003–2004.</b> Clean Energy States Alliance. August 2004.	<a href="http://www.cleaneenergystates.org/library/Reports/CESA Year One Report Final.pdf">http://www.cleaneenergystates.org/library/Reports/CESA Year One Report Final.pdf</a>
<b>Energy Efficiency's Next Generation: Innovation at the State Level.</b> This American Council for an Energy-Efficient Economy (ACEEE) report describes state energy efficiency activities. ACEEE, 2003. W. Prindle, N. Dietsch, R. Neal Elliot, M. Kushler, T. Langer, and S. Nadel. Report No. EO31. ACEEE.	<a href="http://aceee.org/pubs/e031full.pdf">http://aceee.org/pubs/e031full.pdf</a>
<b>State Initiatives for Clean Energy Development.</b> Final Project Report. October 2001. Prepared for Mainewatch Institute, Hallowell, ME by Ed Holt and Associates. The Maine Center for Economic Policy.	<a href="http://www.mecep.org/cleanenergy/initiatives_for_clean_ener.html">http://www.mecep.org/cleanenergy/initiatives_for_clean_ener.html</a>
<b>Revolving Loan Funds</b>	
<b>Iowa Energy Bank.</b> This Iowa DNR Web site contains information about the Iowa Energy Bank.	<a href="http://www.state.ia.us/dnr/energy/MAIN/PROGRAMS/BEM/EBANK/index.html">http://www.state.ia.us/dnr/energy/MAIN/PROGRAMS/BEM/EBANK/index.html</a>
<b>Texas Revolving LoanSTAR.</b> The Texas SECO administers the LoanSTAR program. Additional information about the program is available at SECO's Web site.	<a href="http://www.seco.cpa.state.tx.us/lr.htm">http://www.seco.cpa.state.tx.us/lr.htm</a>
<b>Texas Revolving LoanSTAR Conservation Update Feature Story.</b> This DOE, EE/RE Web page presents a case study describing the Texas revolving loan fund program. January–February 2005.	<a href="http://www.eere.energy.gov/state_energy_program/feature_detail_info.cfm/start=1/fid=45">http://www.eere.energy.gov/state_energy_program/feature_detail_info.cfm/start=1/fid=45</a>
<b>Energy Performance Contracting</b>	
<b>Energy Performance Contracting.</b> The Energy Services Coalition is a nonprofit organization that promotes energy service performance contracting.	<a href="http://www.energyservicescoalition.org/">http://www.energyservicescoalition.org/</a>
<b>The National Association of Energy Service Companies (NAESCO).</b> NAESCO is a trade association in the energy services industry, representing ESCOs, distribution companies, distributed generation companies, engineers, consultants, and finance companies. The Web site contains information on energy efficiency for buildings.	<a href="http://www.naesco.org">http://www.naesco.org</a>
<b>Performance Contracting Activities by State.</b> This section of the Energy Services Coalition Web site provides information and resources about performance contracting programs by state.	<a href="http://www.energyservicescoalition.org/resources/states/activities.htm">http://www.energyservicescoalition.org/resources/states/activities.htm</a>
<b>Performance Contracting Legislation by State.</b> This Oak Ridge National Laboratory Web site contains information on performance contracting legislation by state. The site includes links to legislation and state performance contracting legislation.	<a href="http://www.ornl.gov/info/esco/legislation/">http://www.ornl.gov/info/esco/legislation/</a>
<b>Tax Incentives</b>	
<b>The Database of State Incentives for Renewable Energy.</b> This Web site provides information on state, local, utility, and selected federal incentives that promote renewable energy and energy efficiency.	<a href="http://www.dsireusa.org/">http://www.dsireusa.org/</a>
<b>State Environmental Resource Center Issue: Energy Efficiency Tax Incentives.</b> This site includes a variety of examples of tax incentives and legislation that have been introduced by different states to decrease energy use.	<a href="http://www.serconline.org/energytaxincentives.html">http://www.serconline.org/energytaxincentives.html</a>



Title/Description	URL Address
<b>Tax Incentives (continued)</b>	
<b>State Taxation in a Changing U.S. Electric Power System: Policy Issues and Options.</b> This paper includes an overview of state tax incentives related to electricity generation and describes options for designing incentives to support energy efficiency and renewable energy. M.H. Brown and C. Rewey. National Conference of State Legislatures, December 2004.	<a href="http://www.ncsl.org">http://www.ncsl.org</a>
<b>Tax Credits for Energy Efficiency and Green Buildings: Opportunities for State Action.</b> This ACEEE report analyzes state tax energy efficiency tax incentives provided by the states for the private sector. ACEEE, 2002. E. Brown, P. Quinlan, H.M. Sachs, and D. Williams. Report #E021, March. ACEEE.	<a href="http://aceee.org/pubs/e021full.pdf">http://aceee.org/pubs/e021full.pdf</a>
<b>Designing Financial Incentives</b>	
<b>Incentives, Mandates, and Government Programs Promoting Renewable Energy.</b> This paper discusses major financial incentives used by federal and state governments and their effectiveness in promoting renewable energy.	<a href="http://www.eia.doe.gov/cneaf/solar.renewables/rea_issues/incent.html">http://www.eia.doe.gov/cneaf/solar.renewables/rea_issues/incent.html</a>
<b>U.S. Combined Heat and Power Association (USCHPA).</b> This Web site provides information on federal policies, including tax incentives, designed to promote more widespread use of CHP systems.	<a href="http://uschpa.admgt.com/PolicyFed.htm">http://uschpa.admgt.com/PolicyFed.htm</a>
<b>Grants, Buy Downs, and Generation Incentives</b>	
<b>ACEEE.</b> ACEEE Energy Efficiency Program Database.	<a href="http://aceee.org/new/eedb.htm">http://aceee.org/new/eedb.htm</a>
<b>California Energy Commission (CEC), Emerging Renewables Program.</b> This site provides information about the Emerging Renewables Program (formerly called the "Emerging Renewables Buy-Down Program"), which was created to stimulate market demand for renewable energy systems by offering rebates to reduce the initial cost of the system to the customer.	<a href="http://www.energy.ca.gov/renewables/emerging_renewables.html">http://www.energy.ca.gov/renewables/emerging_renewables.html</a>
<b>Connecticut Light and Power (CL&amp;P).</b> The CL&P Energy Efficiency at Work Web site describes the utility's Express Rebate Program. The programs offer CL&P business customers an opportunity to improve the energy efficiency of their stores or buildings.	<a href="http://www.cl-p.com/clmbus/express/indexexpress.asp#lighting">http://www.cl-p.com/clmbus/express/indexexpress.asp#lighting</a>
<b>CPUC.</b> The CPUC Web site provides information on CPUC activities and regulations.	<a href="http://www.cpuc.ca.gov/">http://www.cpuc.ca.gov/</a>
<b>CPUC Self-Generation Incentive Program.</b> This site provides information about this California program to provide rebates to encourage distributed generation technologies.	<a href="http://www.ora.ca.gov/distgen/selfgen/sgips/index.htm">http://www.ora.ca.gov/distgen/selfgen/sgips/index.htm</a>
<b>The New York State DEC.</b> This Web site describes energy efficiency projects it administers, including details on the Green Building Initiative tax credits.	<a href="http://www.dec.state.ny.us/">http://www.dec.state.ny.us/</a>
<b>Northwest Solar Center Web site.</b> This site provides information on the use of solar energy in the Northwest. It contains information on Washington's production incentive program.	<a href="http://northwestsolarcenter.org/">http://northwestsolarcenter.org/</a>
<b>NYSERDA.</b> This Web site provides information on NYSERDA's projects, including those promoting energy efficiency.	<a href="http://www.nyserda.org/">http://www.nyserda.org/</a>
<b>Renewable Resources Development Report.</b> This report by the CEC provides details on actions the state is taking to promote development of renewable energy generation, with particular focus on RPS.	<a href="http://www.energy.ca.gov/reports/2003-11-24_500-03-080F.pdf">http://www.energy.ca.gov/reports/2003-11-24_500-03-080F.pdf</a>

Title/Description	URL Address
<b>NO<sub>x</sub> Set Asides for Energy Efficiency and Renewable Energy Projects</b>	
<b>Creating an Energy Efficiency and Renewable Energy Set-Aside in the NO<sub>x</sub> Budget Trading Program</b> (Draft, April 2000 EPA-430-K-00-004). This EPA guidance document contains additional details on designing the set-aside application process, allocating to eligible projects, translating energy savings into emission reductions, determining a time frame for implementation and awards, and establishing documentation and reporting procedures.	<a href="http://www.epa.gov/cleanenergy/stateandlocal/guidance.htm">http://www.epa.gov/cleanenergy/stateandlocal/guidance.htm</a>
<b>Designing Measurement and Verification Requirements.</b> This EPA document is under development and will provide additional guidance to states on options for measuring and verifying the potential emission reductions resulting from EE/RE projects.	URL not available.
<b>Guidance on Establishing an Energy Efficiency and Renewable Energy (EE/RE) Set-Aside in the NO<sub>x</sub> Budget Trading Program.</b> March 1999. This EPA guidance document discusses the elements that a state may consider when deciding whether to establish an EE/RE set-aside and how it should be designed (e.g., the size of the set-aside, eligibility, and the length of awards).	<a href="http://www.epa.gov/cleanenergy/stateandlocal/guidance.htm">http://www.epa.gov/cleanenergy/stateandlocal/guidance.htm</a>
<b>Supplemental Environmental Projects</b>	
<b>A Toolkit for States: Using Supplemental Environmental Projects (SEPs) to Promote Energy Efficiency and Renewable Energy.</b> This EPA toolkit is intended to help state and local governments pursue energy efficiency or renewable energy projects through SEPs. It presents the case for pursuing energy efficiency and renewable energy within settlements, provides examples in which SEPs have been used to support such projects, offers additional ideas for projects, and includes a step-by-step regulatory "road map" for pursuing SEPs.	<a href="http://www.epa.gov/cleanenergy/pdf/sep_toolkit.pdf">http://www.epa.gov/cleanenergy/pdf/sep_toolkit.pdf</a>
<b>Measurement and Verification (M&amp;V)</b>	
<b>CALMAC Web Site.</b> California's statewide CALMAC evaluation clearinghouse contains resources for deemed savings and project-specific M&V techniques.	<a href="http://www.calmac.org/">http://www.calmac.org/</a>
<b>Efficient Vermont Technical Reference User Manual.</b> TRM 4-19, published by Efficiency Vermont, 255 S. Champlain Street, Burlington, VT 05401-4717 phone (888) 921-5990. Vermont provides a set of deemed-savings methods in this manual.	<a href="http://www.efficiencyvermont.org/">http://www.efficiencyvermont.org/</a> or contact Efficiency Vermont at 1-888-921-5990.
<b>International Performance Measurement and Verification Protocol (IPMVP) Web Site.</b> IPMVP Inc. is a nonprofit organization that develops products and services to aid in the M&V of energy and water savings resulting from energy/water efficiency projects—both retrofits and new construction. The site contains the IPMVP, a series of documents for use in developing an M&V strategy, monitoring indoor environmental quality, and quantifying emission reductions.	<a href="http://www.ipmvp.org">http://www.ipmvp.org</a>
<b>M&amp;V Resources and Training Opportunities.</b> DOE FEMP, Revision 5, June 16, 2003. This document describes and provides links to numerous resources on the engineering techniques and tools used for verification of energy savings.	<a href="http://ateam.lbl.gov/mv/docs/MV_Resource_ListR6">http://ateam.lbl.gov/mv/docs/MV_Resource_ListR6</a>

## Examples of Legislation

State	Title/Description	URL Address
<b>Revolving Loan Funds</b>		
Iowa	<b>State Facilities Legislation</b> is the enabling legislation for state buildings energy management program.	<a href="http://www.state.ia.us/dnr/energy/MAIN/PROGRAMS/BEM/EBANK/LEG.PDF">http://www.state.ia.us/dnr/energy/MAIN/PROGRAMS/BEM/EBANK/LEG.PDF</a>
Montana	<b>Senate Bill 506 in 2001</b> established an Alternative Energy Loan Fund.	<a href="http://data.opi.state.mt.us/bills/2001/billhtml/SB0506.htm">http://data.opi.state.mt.us/bills/2001/billhtml/SB0506.htm</a>
	<b>Senate Bill 50 in 2005</b> amended the Alternative Energy Loan Fund.	<a href="http://data.opi.state.mt.us/bills/2005/billhtml/SB0050.htm">http://data.opi.state.mt.us/bills/2005/billhtml/SB0050.htm</a>
Texas	<b>Texas Administrative Code.</b> Subchapter Loan Program for Energy Retrofits. This subchapter describes the Texas revolving loan program for energy efficiency retrofits.	<a href="http://info.sos.state.tx.us/pls/pub/readtac\$ext.ViewTAC?tac_view=5&amp;ti=34&amp;pt=1&amp;ch=19&amp;sch=D&amp;rl=Y">http://info.sos.state.tx.us/pls/pub/readtac\$ext.ViewTAC?tac_view=5&amp;ti=34&amp;pt=1&amp;ch=19&amp;sch=D&amp;rl=Y</a>
<b>Tax Incentives</b>		
Maryland	<b>2001 Clean Energy Incentive Act</b> established tax incentives for energy-efficient equipment.	<a href="http://mlis.state.md.us/PDF-documents/2000rs/bills/hb/hb0020e.pdf">http://mlis.state.md.us/PDF-documents/2000rs/bills/hb/hb0020e.pdf</a>
	<b>2001 Green Building Tax Credit</b> provides tax credits for buildings meeting aggressive energy efficiency standards. See text of House Bill 8.	<a href="http://mlis.state.md.us/2001rs/bills/hb/hb0008e.rtf">http://mlis.state.md.us/2001rs/bills/hb/hb0008e.rtf</a>
New York	<b>The New York Assembly</b> passed the Green Building Tax Credit legislation in May 2000.	<a href="http://www.dec.state.ny.us/website/ppu/grnbldg/a11006.pdf">http://www.dec.state.ny.us/website/ppu/grnbldg/a11006.pdf</a>
Oregon	<b>1980 legislation</b> established the BETC. In 2001, green buildings were added to the BETC. See Oregon Revised Statute 469.	<a href="http://www.leg.state.or.us/ors/469.html">http://www.leg.state.or.us/ors/469.html</a>
<b>Performance Contracting</b>		
Colorado	<b>Enabling legislation for performance contracting.</b> (See Title 29 Local Government 29-12.5-101, 29-12.5-102, 29-12.5-103, 29-12.5-104, and Title 24 State Government 24-30-2001, 24-30-2002, 24-30-2003.)	<a href="http://198.187.128.12/colorado/lpext.dll?f=templates&amp;fn=fs-main.htm&amp;2.0">http://198.187.128.12/colorado/lpext.dll?f=templates&amp;fn=fs-main.htm&amp;2.0</a>
Washington	<b>Engrossed House Bill 2247-Energy Audits, 2001</b> is that state's enabling legislation for performance contracting.	<a href="http://www.leg.wa.gov/pub/billinfo/2001-02/House/2225-2249/2247_pl_09252001.txt">http://www.leg.wa.gov/pub/billinfo/2001-02/House/2225-2249/2247_pl_09252001.txt</a>
<b>Grants and Rebates (Buy Downs)</b>		
California	<b>The California Solar Center</b> tracks some of the legislation passed for financial incentives for solar in California.	<a href="http://www.californiasolarcenter.org/legislation.html">http://www.californiasolarcenter.org/legislation.html</a>
	<b>Legislation for the Supplemental Energy Payments Program.</b>	<a href="http://www.dsireusa.org/library/docs/incentives/CA22F.pdf">http://www.dsireusa.org/library/docs/incentives/CA22F.pdf</a> (Senate Bill No. 1038) <a href="http://www.dsireusa.org/library/docs/incentives/CA22Fa.pdf">http://www.dsireusa.org/library/docs/incentives/CA22Fa.pdf</a> (Senate Bill No. 078)
Massachusetts	<b>MTC's Commercial, Industrial, and Institutional Initiative (CI3).</b>	<a href="http://www.masstech.org/renewableenergy/CI3.htm">http://www.masstech.org/renewableenergy/CI3.htm</a>

State	Title/Description	URL Address
<b>Grants and Rebates (Buy Downs) (continued)</b>		
<b>New York</b>	<b>The New York State Environmental Conservation Law</b> (§§ 1-0101, 3-0301, 19-0103, 19-0105, 19-0305, 19-0311) provides the New York DEC's authority.	<a href="http://www.dec.state.ny.us/website/regs">http://www.dec.state.ny.us/website/regs</a>
	<b>NYSERDA</b> has information about its funding program.	<a href="http://www.powernaturally.com/Funding/funding.asp?i=2">http://www.powernaturally.com/Funding/funding.asp?i=2</a>
<b>Washington</b>	<b>Senate Bill 5101 Providing Incentives to Support Renewable Energy.</b> This bill establishes production incentives and economic multipliers for renewable energy.	<a href="http://www.leg.wa.gov/wsladm/billinfo1/dspBillSummary.cfm?billnumber=5101&amp;year=2005">http://www.leg.wa.gov/wsladm/billinfo1/dspBillSummary.cfm?billnumber=5101&amp;year=2005</a>

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